

Appl. No. 09/780,804

Attorney Docket No. 2048-039 (81841.0183)

Amdt. Dated March 16, 2004

Reply to Final Office Action of December 23, 2003

REMARKS/ARGUMENTS:

Claim 31 is canceled without prejudice. Claims 1, 7, 21-24, and 27 are amended. Support for the amendments to claims 1 and 27 can be found at page 6, lines 22-28. Claims 1-30 are pending in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

CLAIM OBJECTIONS:

The Examiner states that claims 7 and 27 are objected to because of informalities. The Examiner states that in claims 7 and 27 "matingly locked" should be replaced with --to matingly lock--. In response, the Applicant amended claims 7 and 27 in the manner suggested by the Examiner. Withdrawal of these objections is thus respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. §102:

Claims 1, 2, 4-6, 21-27, 31 stand rejected under 35 U.S.C. §102(b) as being anticipated by Mater (U.S. Patent No. 3,598,393). This rejection is moot with respect to claim 31 due to the cancellation of this claim. The Applicant respectfully traverses this rejection as to claims 1, 2, 4-6, and 21-27.

Claim 1, as amended, is as follows:

An apparatus for piercing container caps, comprising:

- a) a piercing blade having a longitudinal axis and a zigzagged cross-section that is perpendicular to said axis;
- b) an alignment arm for moving said blade in a linear motion to pierce a cap on a container, comprising a carriage assembly for moving said alignment arm; and means for driving said carriage assembly.

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Applicant respectfully submits that Mater cannot anticipate claim 1, because Mater fails to teach a piercing blade of any kind, much less a piercing blade having a longitudinal axis and a zigzagged cross-section that is perpendicular to said axis. The Examiner refers to item 120 of Mater as being a piercing blade. The Applicant respectfully submits that what the Examiner refers to as a piercing blade is not a piercing blade, but rather a drill bit. In Mater,

"A drill bit 120 (FIGS. 6 and 7) is secured to the left-hand end of the tube 96 by threads 122 and a setscrew 124. The bit 120 includes a tapered, tapped, counterbored mounting sleeve 126 screwed into the tube 96, and a tapered, tapped, drill carrying sleeve 128 is screwed onto the forward end of the sleeve 126." (Mater, column 2, lines 68-73).

The structure and function of a drill bit are different than those of a piercing blade. Therefore, a drill bit cannot be regarded as the same as or equivalent to a piercing blade. In addition, Mater cannot anticipate claim 1, because Mater fails to teach an alignment arm for moving said blade in a linear motion to pierce a cap on a container. The Applicant respectfully submits that the alignment arm for moving said blade in amended claim 1 is neither the same as nor equivalent to a means for moving a drill bit as taught by Mater.

The Applicant's specification at page 6, lines 17-28, describes an alignment block 3 held in contact with a carriage assembly 2 by means of a light tension spring 4. The carriage assembly 2 moves downward until the alignment arm 6 encounters the sample tube cap 9. At this point, the carriage assembly 2 separates from the top 8 of the alignment block 3, the latch trigger 18 is released, and the teeth 22 on the gear rack actuator latch with the gear rack segment teeth 23. This locks the alignment block 3 in position. The cutting blade 4 is driven down through the wash tower/wick holder 5 and cuts through the tube cap 9. Thus, a carriage assembly moves an alignment arm in a linear motion to drive the piercing blade.

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Mater, in contrast, relies on a rotation motion for drilling. Mater is directed to pole-boring machines, and more particularly to a machine for precisely boring a hole into a pole. (Mater, column 1, lines 9-10). The drill bit is attached to a tube 96. (Mater, column 2, lines 68-70).

Mater states:

"For drill bits of 2 1/2 inch diameter, a speed or rotation of the tubes 96 from 1,200 to 1,850 revolutions per minute is used. For drill bits of 4 inch or 6 inch diameters, the speed of rotation of the tubes 96 may be 600 revolutions per minute or lower." (Mater, column 5, lines 31-35)."

Therefore, Mater is relying on a rotation motion for boring holes. Mater cannot make claim 1 obvious, because Mater fails to teach or suggest either a piercing blade having a longitudinal axis and a zigzagged cross-section that is perpendicular to said axis or an alignment arm for moving said blade in a linear motion to pierce a cap on a container. As discussed on page 8, line 8-page 9, line 6, the present invention offers a number of unexpected advantages over the conventional piercing blades. The blade of the present invention is stiff and can reliably pierce a thick rubber cap or stopper in the top of a sample tube made of either glass or plastic without leaving debris or breaking the tube. In addition, it reduces the amount of vertical force required to pierce a thick cap or stopper, which prevents jamming the cap or stopper into the sample container, and also reduces the retraction force required to strip the cap or stopper from the piercing blades. The Z-shaped cut made by the blades of the present invention is more consistent and allows adequate ventilation during sample probe entry, so that obstruction detection and sample aspiration meet the system requirements.

In light of the foregoing, Applicant respectfully submits that Mater could not have anticipated or rendered obvious claim 1, because Mater fails to teach or suggest each and every claim limitation. Claims 2 and 4-6 depend from claim 1 and

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cannot be anticipated or rendered obvious for at least the same reasons as claim 1. Withdrawal of these rejections is thus respectfully requested.

Claims 21-27, likewise, have the limitations: i) a piercing blade having a longitudinal axis and a zigzagged cross-section that is perpendicular to said axis; and ii) an alignment arm for moving said blade in a linear motion to pierce a cap on a container. Therefore, these claims are patentable over Mater for the same reasons discussed above. Withdrawal of these rejections is thus respectfully requested.

Claims 1-10 and 21-31 stand rejected under 35 U.S.C. §102(b) as being anticipated by Bruno et al. (U.S. Patent No. 4,182,208). This rejection is moot with respect to claim 3 due to its previous cancellation in the September 22, 2003 response to the Office Action dated March 27, 2003. This rejection is moot with respect to claim 31 due to the current cancellation of this claim. The Applicant respectfully traverses this rejection as to claims 1, 2, 4-10, and 21-30.

Bruno cannot anticipate or render obvious claim 1, because Bruno fails to teach or suggest an alignment arm for moving a blade in a linear motion to pierce a cap on a container. As discussed above, the present invention teaches moving an alignment arm to move a blade in a linear motion through the cap of a container. Bruno, in contrast, is directed to a means for perforating a sheet of plastic material by pulling the sheet over a die roller that has a plurality of slightly raised Z-shaped cutting edges. (Bruno, column 3, lines 59-66). Therefore, Bruno relies on rolling a sheet over a roller and not moving an alignment arm in a linear motion to cause a piercing. Consequently, the means for moving a roller having a plurality of slightly raised Z-shaped cutting edges as taught by Bruno is neither the same as nor equivalent to an alignment arm for moving a blade in a linear motion in claim 1.

In light of the foregoing, Applicant respectfully submits that Bruno could not have anticipated or rendered obvious claim 1, because Bruno fails to teach or

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suggest each and every claim limitation. Claims 2 and 4-10 depend from claim 1 and cannot be anticipated or rendered obvious for at least the same reasons as claim 1. Withdrawal of these rejections is thus respectfully requested.

Claims 21-30, likewise, have the limitation: an alignment arm for moving said blade in a linear motion to pierce a cap on a container. Therefore, these claims are patentable over Bruno for the same reasons discussed above. Withdrawal of these rejections is thus respectfully requested.

Claim 31 stands rejected under 35 U.S.C. §102(b) as being anticipated by Valo (U.S. Patent No. 4,271,882) or Ott (U.S. Patent No. 5,674,237) or Bellhouse (U.S. Patent No. 4,611,579) or Musacchia (U.S. Patent No. 4,558,868). This rejection is moot due to the cancellation of claim 31.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103:

Claims 8, 9, 28, and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mater (U.S. Patent No. 3,598,393) in view of Zettel (U.S. Patent No. 3,310,990) or Halverstadt (U.S. Patent No. 3,273,248) or Johnston (U.S. Patent No. 1,485,460). Applicant respectfully traverses this rejection.

Claims 8-9 and 28-29 depend from claims 1 and 21, respectively, and therefore, cannot be rendered obvious over Mater for the same reasons discussed above. Zettel, Halverstadt, and Johnston cannot remedy the defect of Mater and none of the three references are relied upon by the Examiner for such. Instead, the Examiner cites the three references for teaching the use of gear rack teeth or saw teeth to securely hold two structures together.

In light of the foregoing, Applicant respectfully submits that the cited references could not have made claims 8-9 and 28-29 obvious, because the combination of references fails to teach or suggest each and every claim limitation. Withdrawal of this rejection is thus respectfully requested.

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Claims 10 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mater (U.S. Patent No. 3,598,393). Applicant respectfully traverses this rejection.

Claims 10 and 30 depend from claims 1 and 21, respectively, and as such include all the limitations of claims 1 and 21, and therefore, cannot be rendered obvious over Mater for the same reasons discussed above. Withdrawal of this rejection is thus respectfully requested.

Applicant believes the foregoing amendments comply with requirements of form and thus may be admitted under 37 C.F.R. § 1.116(a). In addition, admission is requested under 37 C.F.R. § 1.116(a) as presenting rejected claims in better form for consideration on appeal.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6700 to discuss the steps necessary for placing the application in condition for allowance.

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If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,

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Date: March 16, 2004

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